

1 services provided by the ILEC. For example, a CLEC may buy
2 directory assistance services from NYT at NYT's tariffed
3 price. The CLEC is likely to resell the DA to its own
4 customers at the same price to be competitive. If the CLEC
5 is required to discount its DA price below what it paid NYT,
6 the CLEC will be forced to incur a loss. Surely, this does
7 not further the Commission's policy favoring the development
8 of competition.

9
10 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

11 A. It is critical to the development of facilities-based
12 competition that the Commission establish an appropriate
13 resale discount. The Commission's conclusions as to the
14 amount of the discount will either move local competition
15 toward facilities-based provisioning or create a resale-only
16 environment. In calculating the wholesale discount, the
17 Commission should define avoided cost as costs assumed the
18 provision of the net difference between wholesale and
19 retail, taking into account all cost differences, including
20 onsets. Only this interpretation provides the correct cost
21 foundation for wholesale service provisioning: one that
22 does not distort the underlying economics of local
23 competition for all competitors. A net avoided cost

1 interpretation also provides a foundation that will spur all
2 competitors to move toward the facilities-based competition.

3

4 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

5 A. At this time it does.

6 AL26044.1

7

NON-PROPRIETARY VERSION

STATE OF NEW YORK
DEPARTMENT OF PUBLIC SERVICE

-----X

Joint Complaint of AT&T Communications of New York, Inc., MCI Telecommunications Corporation, WorldCom, Inc. d/b/a LDDS WorldCom and the Empire Association of Long Distance Telephone Companies, Inc. Against New York Telephone Company Concerning Wholesale Provisioning of Local Exchange Service by New York Telephone Company and Sections of New York Telephone's Tariff No. 900.

Case 95-C-0657

Proceeding on Motion of the Commission to Examine Issues Related to the Continuing Provision of Universal Service and to Develop a Regulatory Framework for the Transition to Competition in the Local Exchange Market.

Case 94-C-0095

Proceeding on Motion of the Commission Regarding Comparably Efficient Interconnection Arrangements for Residential and Business Links.

Case 91-C-1174

Administrative Law Judge
Joel A. Linsider

-----X

**DIRECT TESTIMONY OF WILLIAM W. DUNKEL
ON BEHALF OF
TIME WARNER COMMUNICATIONS
HOLDINGS, INC., CABLEVISION LIGHTPATH, INC.,
TELE-COMMUNICATIONS, INC. AND CABLE
TELEVISION AND TELECOMMUNICATIONS
ASSOCIATION OF NEW YORK, INC.**

**LeBOEUF, LAMB, GREENE & MacRAE,
L.L.P.**

**One Commerce Plaza, Suite 2020
99 Washington Avenue
Albany, New York 12210
TEL: (518) 465-1500**

of Counsel:

**David R. Poe
Brian T. FitzGerald**

Dated: July 3, 1996

1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

2 A.. My name is William W. Dunkel. My business address is 8625 Farmington Cemetery Road,
3 Pleasant Plains, Illinois 62677.

4

5 Q. WHAT IS YOUR PRESENT OCCUPATION?

6 A.. I am the principal of William W. Dunkel and Associates, a consulting firm established in
7 1980. In addition to myself, the firm currently consists of an economist, as well as clerical
8 staff. Since 1980, I have regularly provided consulting services in telephone regulatory
9 proceedings throughout the country. I have participated in over 100 state regulatory telephone
10 proceedings as listed on Appendix A attached hereto. Appendix A also shows my relevant
11 business experience and educational background.

12

13 Q. WHERE HAVE YOU TESTIFIED PREVIOUSLY?

14 A. I have testified before approximately one-half of the state commissions in the United States as
15 an expert witness in telephone regulatory proceedings.

16

17 Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

18 A. I am testifying on behalf of Time Warner Communications Holdings, Inc. ("TW COMM"),
19 Cablevision Lightpath, Inc. ("Lightpath"), Tele-Communications, Inc. ("TCI") and the Cable
20 Television and Telecommunications Association of New York, Inc. ("CTTANY").

21

1 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

2 A. The purpose of my testimony is to present an analysis of the cost studies filed by New York
3 Telephone Company ("NYT") and Rochester Telephone Corporation ("RTC") and, based on
4 that analysis, to recommend appropriate wholesale discount factors for NYT and RTC.

5

6 Q. HAVE YOU ANALYZED THE COST STUDIES FILED BY NEW YORK TELEPHONE
7 COMPANY AND ROCHESTER TELEPHONE CORPORATION AND RELATED
8 DOCUMENTS?

9 A. Yes, I have analyzed both studies, the related pre-filed testimony and workpapers. In
10 addition, I analyzed NYT's and RTC's responses to discovery requests.

11

12 Q. HOW DID YOU PROCEED IN ANALYZING THE STUDIES?

13 A. Utilizing my experience and generally-accepted methods of cost analysis, I applied to the
14 studies the principles and policies set forth in the testimony of Rochelle Jones, including the
15 concept that avoided cost should be the net avoided cost between retail and wholesale services.

16

17 Q. DID YOUR ANALYSIS INDICATE A NEED TO MAKE ADJUSTMENTS TO EITHER
18 STUDY?

19 A. Yes. My analysis indicated that both studies were in need of correction in order to arrive at
20 reasonable wholesale discount factors. Based on that analysis, I calculated adjustments to each
21 study.

1 Q. BEFORE DISCUSSING YOUR ADJUSTMENTS, PLEASE IDENTIFY WHAT
2 DEFINITION OF AVOIDED COST YOU UTILIZE.

3 A. I utilize the definition established by Rochelle Jones in her testimony. This requires the NYT
4 study to be adjusted to reflect the additional costs that NYT would incur as a result of having
5 to provide wholesale local telephone services. These cost onsets operate to partially offset the
6 retail costs the incumbent carrier avoids by offering wholesale as compared to retail service.

7

8 Q. PLEASE BRIEFLY OUTLINE THE ADJUSTMENTS THAT YOU MADE TO NYT'S
9 STUDY.

10 A. First, I adjusted NYT's avoided retail costs to treat retail advertising as an avoided cost.
11 Second, I adjusted the uncollectibles expense and unsubstantiated billing adjustment to reflect
12 wholesale operations rather than retail operations. I made the uncollectibles adjustments as
13 expense adjustments rather than as revenue offsets. Finally, I added in wholesale service cost
14 onsets. These "onsets" include amortization of wholesale service start-up costs, as well as
15 additional recurring wholesale costs.

16

17 Q. HAVE YOU PREPARED AN EXHIBIT TO REFLECT THESE ADJUSTMENTS?

18 A. Yes. Exhibit __ WWD-1 illustrates the calculation of the corrected NYT wholesale discounts,
19 using each of the adjustments I have described above.

20

21

1 Q. PLEASE EXPLAIN EXHIBIT __ WWD-1.

2 A. Line 1 shows the avoided expense, as calculated by NYT. Line 2 increases that avoided
3 expense to recognize that retail advertising costs should also be considered avoided. Line 3
4 treats the uncollectibles, at the retail service uncollectibles rate, as an avoided cost. This
5 uncollectible adjustment is calculated using the same uncollectibles rate that NYT used. Line I
6 shows the gross avoided retail cost per line per month. Line 4 shows the wholesale
7 uncollectibles. This line also includes the impact of the greater bill adjustments that are
8 experienced by wholesale service, as compared to retail service. Line 5 shows the wholesale
9 "onset" costs. This includes the recurring costs and amortizes initial costs of providing the
10 wholesale version of the functions for which the costs were excluded in the "gross retail
11 avoided cost." Line III shows the avoided cost per line per month. This is the net of the
12 gross avoided retail cost, less the wholesale cost for equivalent wholesale functions. The
13 avoided cost for business service is [REDACTED] [proprietary to NYT] per line per month and for
14 residential service is [REDACTED] [proprietary to NYT] per line per month. Line IV shows the
15 revenue per line. Line V shows the avoided cost as a percent of revenue. The calculations
16 which support Exhibit __ WWD-1 are shown on Exhibits __ WWD-2, -3, -4, -5 and -6.

17

18 Q. HAVE YOU MADE ANY REVENUE ADJUSTMENTS TO THE NYT STUDY?

19 A. Yes. NYT has included interstate corridor toll traffic revenues in its study. These are
20 interstate revenues that are not appropriately considered for intrastate purposes. Therefore, I
21 made an adjustment to exclude these revenues. It is not clear whether the costs that NYT has

1 provided are intrastate costs only; there is a pending discovery request which should clarify
2 that issue. If the costs that NYT has included in its study do include interstate or unrelated
3 costs, those costs should be excluded from the analysis as well. I also removed the
4 uncollectibles from the revenue analysis because I have included uncollectibles in the expense
5 analysis.

6
7 Q DID YOU PREPARE AN EXHIBIT TO ILLUSTRATE THE REVENUE ADJUSTMENTS?

8 A. Yes. Exhibit __ WWD-2 shows the adjustments I made to NYT's revenues. Line 1 shows
9 the revenues used by NYT in its study. On line 2, I removed the impact of uncollectibles
10 from the revenues. As I explain later, I made this adjustment because I am treating the
11 adjustment for uncollectibles in expenses. On line 3, I removed the interstate corridor
12 revenues that NYT included in its study (see Curbelo Exhibit, Part A-2, page 14 of 16). Line
13 4 shows the corrected revenues per line.

14
15 The calculations which support Exhibit __ WWD-2 are shown on Exhibit __ WWD-4 and
16 Exhibit __ WWD-12.

17
18 Q. WHAT PRINCIPLE DID YOU FOLLOW WHEN ESTABLISHING THE COST ONSETS
19 SHOWN ON LINE 5 OF EXHIBIT __ WWD-1?

20 A. The concept followed in this adjustment was to place the cost on the cost causer. The
21 wholesale onset costs shown on line 5 of Exhibit __ WWD-1 recovers the added wholesale

1 cost from the wholesale services. "Onset costs" includes not only start-up costs associated
2 with wholesale services, but also the added ongoing costs of providing the wholesale functions
3 that replace the "avoided" retail functions.
4

5 Q. CAN YOU PLEASE EXPLAIN IN DETAIL HOW YOU CALCULATED THE ONSET
6 COSTS SHOWN ON LINE 5 OF EXHIBIT __ WWD-1?

7 A. Yes. This calculation is summarized on Exhibit __ WWD-6. Part I shows that the total one
8 time initial cost of establishing the additional wholesale services is over \$33 million. The
9 figures used were calculated by NYT and are shown in the Exhibits of C.R. Curbelo, Part A-
10 1, page 3. There are recurring costs which are in addition to the previously discussed
11 \$33 million of initial costs. An analysis of these recurring additional wholesale costs is shown
12 on Part II of Exhibit __ WWD-6.
13

14 Q. WHAT DID YOU DO NEXT?

15 A. I calculated the uniform monthly rate per resold line which would recover these costs. This
16 rate was calculated by determining the rate per line per month which would produce a revenue
17 stream over five years that had the same present value as the present value of the cost stream
18 during those years. The resulting rate per resold line is \$1.29 per month, as is shown in Part
19 III of Exhibit __ WWD-6. This proposal is fair to both NYT, NYT's customers and the
20 competing CLECs. Under this method, the additional costs caused by the wholesale services
21 are recovered in their entirety from the wholesale services over a five-year period, yet the

1 mechanism does not overburden the wholesale services during the early years when the
2 quantities in service may be small. I have calculated this amount as a per month per resold
3 line amount, but that does not imply that this amount must necessarily be recovered using a
4 "per line" rate design. I will discuss rate design later in my testimony.

5
6 Q. ARE THERE OTHER MEASURES THE COMMISSION MIGHT UNDERTAKE TO
7 ACCURATELY ACCOUNT FOR AND APPROPRIATELY DEAL WITH ONSET COSTS?

8 A.. Yes. I would recommend that the Commission require that NYT track the specific onset
9 costs, as well as the onset revenues received, and file a report each year showing the onset
10 costs incurred, the revenues received and a comparison of the two. Any onset costs that are
11 not recovered in the onset revenues should be carried forward into the next year, including
12 appropriate carrying charges. A section of the report should also contain NYT's projection of
13 future resold line quantities and a projection of when in the future NYT would expect the
14 onset costs to have been fully recovered from the onset revenues. This mechanism would
15 allow the Commission to review and, if necessary, true-up the onset adjustment. Although the
16 dollar amounts are smaller, a similar report could also be required from RTC.

17
18 Q. DID YOU ADJUST NYT'S STUDY FOR MARKETING AND ADVERTISING EXPENSES?

19 A. Yes, I adjusted the advertising expenses to treat them as avoided retail costs. Advertising
20 expenses that are incurred specifically for the purpose of advertising a retail product should be
21 considered avoided costs when calculating the wholesale rate. This is a matter of principle

1 having nothing to do with whether retail advertising expenditures go up or down as a result of
2 the incumbent carrier initiating wholesale service. In fact, as competition at the retail level
3 takes off, the incumbent's expenditures for retail advertising may increase. The retail
4 advertising costs, however, will provide no benefit to the wholesale services and, therefore,
5 should be considered avoided in the development of a wholesale rate.

6
7 For the remainder of the marketing expenses, it is not clear that the overall marketing expense
8 as a percent of revenue for the wholesale services would be significantly lower than those
9 marketing expenses as a percent of revenue for the retail services. Specifically, a large part of
10 what is considered "marketing expense" (Account 6610) is made up of "product management."
11 Product management will be required for wholesale services. Attached as Exhibit __ WWD-
12 11 is NYT's response to Request TW-NYT-58, which shows some of the functions of the
13 "Product Manager." Those functions include: revenue/resource requirements, strategic
14 direction, product planning, product management, and stakeholder management. Some of the
15 specific responsibilities include: preparing various forecasts; monitoring monthly results;
16 preparing budgets; solving problems; participating in the preparation of technical descriptions;
17 model tariffs; pricing; interacting with regulatory commission staffs; preparing analyses and
18 responding to interrogatories. Similar activities will be necessary to manage an ILEC's
19 wholesale products. Therefore, wholesale product management costs will exist and they
20 should be recovered from the wholesale products.

1 Q. HOW DID NYT TREAT UNCOLLECTIBLES IN ITS STUDY?

2 A. In its study, NYT did not include uncollectibles as part of the [REDACTED] [proprietary to NYT]
3 avoided cost shown on Part A-2, page 1 of 16 NYT witness C.R. Curbelo's testimony
4 (Exhibits of C.R. Curbelo). NYT instead used uncollectibles to adjust the [REDACTED] [proprietary
5 to NYT] average revenue per month figure that is shown on line 6 of that same page.
6 Theoretically, the issue of whether the uncollectibles are treated as a revenue or expense
7 should have little impact on the final result, providing that they are calculated properly, and
8 are included in some reasonable manner. NYT explained that it was treating the uncollectible
9 as a deduction from revenues, rather than as a cost. Attachment A, page 2 of Ms. Brown's
10 testimony shows that the Company proposes to offset the \$3.54 avoided cost by a credit of
11 \$1.25 per line per month (in the third year) and to offset the remainder by applying a
12 percentage to rates of other services, with the total to equal \$3.54. Since the \$3.54 figure
13 does not include any adjustment for uncollectible expense, the proposed \$1.25 rate also does
14 not include any adjustment for uncollectible expense.

15

16 Q. DOESN'T THE FACT THAT THE COMPANY ADJUSTED THE REVENUE FIGURE ON
17 PART A-2, PAGE 1 IMPACT THE \$1.25 FIGURE IN SOME MANNER?

18 A. No. The \$1.25 rate is not based upon revenues. It is a flat \$1.25 per month. Since the
19 uncollectible adjustment is in revenues but the \$1.25 is not based on revenues, the
20 uncollectible is ignored when arriving at the \$1.25 proposed rate. The 9.5 percent that NYT
21 applies to rates for the remainder of the \$3.54 provides recognition of part of the uncollectible

1 amount, but the \$1.25 figure would not. For comparison, when the uncollectible is included
2 in the avoided expense as I propose, there is no doubt that it has been included.

3
4 Q. WAS NYT ABLE TO PROVIDE YOU WITH ITS ACTUAL UNCOLLECTIBLE
5 EXPERIENCE FOR LOCAL WHOLESALE?

6 A. No. In response to Request TW-NYT-33, NYT indicated it had no local wholesale
7 uncollectible experience

8
9 Q. WHAT NATIONWIDE UNCOLLECTIBLE INFORMATION DO YOU HAVE
10 PERTAINING TO RESELLERS?

11 A. Sprint's Long Distance Division has experienced an uncollectible/disputed billing adjustment
12 rate of 2.43 percent nationwide from long-distance resellers. Exhibit __ WWD-7 is United's
13 response in a Tennessee proceeding, which shows the 2.43 percent uncollectible/
14 unsubstantiated billing adjustment they experienced nationwide from resellers in the long
15 distance market. United's response includes what are normally considered uncollectibles, as
16 well as unsubstantiated billing adjustments. The key item this response shows is the 1.16
17 percent of revenues from resellers which is lost due to unsubstantiated billing adjustments.
18 This is in addition to the uncollectibles. A wholesale uncollectibles rate is appropriate,
19 particularly during a time when new companies will be emerging and scrambling for market
20 share. Some of these companies may succeed but others will fail. As the Sonic

1 Communications, Inc., experience in California demonstrated, resellers can go bankrupt,
2 leaving the LECs with millions of dollars of unpaid bills, as is shown on Exhibit __ WWD-8.

3
4 Q. IS THERE ANY DIFFERENCE BETWEEN THE BILL PAYMENT PRACTICES OF
5 RESELLERS AND TYPICAL END USERS?

6 A. Yes. In addition to traditional uncollectibles, resellers dispute portions of their bills more and
7 with greater success than typical end users. As NYT's witness has acknowledged, "disposition
8 of disputed claims with other providers of telecommunications services do not appear as
9 uncollectible revenue, and they are at higher levels than are experienced with end users."
10 Settlement of these billing disputes with resellers often results in lower amounts beings paid by
11 the resellers to the LEC than they were billed by the LEC, as NYT acknowledged in response
12 to TW-NYT-32B. In that response, NYT confirmed that "there were substantial claims which
13 were settled by NYT for an amount less than NYT believed it was entitled." The disputed
14 amounts among resellers and LECs should be recognized as similar to uncollectibles for
15 purposes of calculating avoided costs.

16
17 Q. DID YOU ADJUST THE NYT STUDY TO REFLECT THIS FACT?

18 A. Yes. In reaching my recommended wholesale discount calculations, I have treated the
19 uncollectible/unsubstantiated billing adjustments as an expense. I utilized the difference
20 between this value as a service provided to the resellers, less the percent as a service provided

1 to end users, as part of the difference in providing these services on a wholesale versus retail
2 basis.

3
4 Q. DO YOU AGREE WITH THE RATE DESIGN PROPOSED BY NYT?

5 A. I do not have a strong preference for the specific rate design to be adopted, providing that the
6 overall wholesale discount percentage is as shown on my Exhibit __ WWD-1. NYT has
7 proposed a \$1.25 per line dial tone line (DTL) credit with a 9.4 percent discount applying to
8 other business services, and a 9.5 percent discount applying to other residential services.
9 These figures are in the third year as shown on Attachment A, pages 1 and 2 of Ms. Brown's
10 testimony. If NYT's rate design is followed but adjusted for the difference in the overall
11 percent discount between my recommendation and the NYT recommendation, the result would
12 be the rates shown under Option 1 on Exhibit __ WWD-13. Another possible option
13 illustrated on Exhibit __ WWD-13 is to utilize the discounts of 6.2 percent for all relevant
14 business services, and 7.5 percent for all relevant residential services.

15
16 Q. YOU STATED EARLIER THAT YOU HAD ADJUSTED RTC'S STUDY. DID YOU
17 PREPARE AN EXHIBIT TO ILLUSTRATE THESE ADJUSTMENTS?

18 A. Yes. Please refer to Exhibit __ WWD-14. This exhibit shows the calculation of the overall
19 wholesale discount percent for RTC. Line 1 shows the avoided expense as calculated by RTC
20 on its Exhibit 3. Line 2 increases the avoided expenses to recognize that retail advertising
21 expenses are avoided. On line 3, I reverse the excessive uncollectibles deduction that RTC

1 had included in its calculation. RTC had deducted the interstate and non-regulated
2 uncollectibles expenses, as well as the intrastate uncollectibles. On line 4, I deducted the
3 intrastate uncollectibles. The gross retail avoided cost is shown on Line I. On line 4, I add
4 back in the wholesale uncollectibles, including the greater disputed adjustments which occur
5 for wholesale services as compared to retail services. Line II shows the total wholesale costs
6 for those functions which replace the avoided retail costs. Line III shows the avoided cost,
7 which is the net of the gross retail avoided cost and the added wholesale costs. Line IV
8 shows the revenues in the study. Line V shows the overall wholesale discount as a percent of
9 revenues.

10
11 Q. PLEASE EXPLAIN FURTHER YOUR ADJUSTMENT TO UNCOLLECTIBLES ON
12 LINES 3 AND 4 OF EXHIBIT WWD-14.

13 A. The amount RTC used in its study as avoided was the total uncollectibles for 1995, including
14 the uncollectibles for non-regulated services, the uncollectibles for interstate services, as well
15 as the uncollectibles for intrastate services. The uncollectibles revenues from the Company's

1 1995 ARMIS reports are:

2		(\$000)
3	Non-regulated	\$177 (ARMIS 43-04, page 2.1, line 15300)
4	Interstate	\$699 (ARMIS 43-04, page 17.1, line 4040)
5	Intrastate	\$1,689 (ARMIS 43-04, page 17.1, line 4040)
6	Misc.	<u>\$1</u>
7	Total	\$2,566

8
9 The total number is the number RTC used as part of its avoided costs for this proceeding.

10 This is an error since this figure includes not only the intrastate uncollectibles, but also the
11 interstate uncollectibles and the non-regulated service uncollectibles. Regardless of whether
12 this cost would be avoided or not overall, all of it clearly would not be avoided in the
13 intrastate regulated jurisdiction, which is what we are dealing with in this proceeding.

14
15 Q. WHAT IS EXHIBIT __ WWD-9?

16 A. Exhibit __ WWD-9 contains pages from the ARMIS report that show the uncollectible figures.

17 Page 1 of Exhibit __ WWD-9 shows the total uncollectible in column (b) which is then
18 disaggregated between the regulated and non-regulated in columns (c) and (d) on line 5300.

19 Page 2 of Exhibit __ WWD-9 shows the regulated amount further segregated between state
20 and interstate in columns (c) and (d), line 4040.

1 Q. WERE THERE ANY OTHER PROBLEMS WITH RTC'S TREATMENT OF
2 UNCOLLECTIBLES?

3 A. Yes. By removing the full amount of uncollectibles from the retail cost, RTC effectively
4 assumed in its calculations that there would be no uncollectibles for wholesale services. This
5 is an unreasonable assumption. I, therefore, adjusted RTC's uncollectibles by adopting the
6 same uncollectible rate that occurs for the retail service. In addition, I took into account the
7 fact that greater unsubstantiated billing dispute adjustments will occur more frequently for
8 wholesale services as compared to retail services. Details of this adjustment are shown on
9 Exhibit __ WWD-16.

10

11 Q. WHAT IS EXHIBIT __ WWD-15?

12 A. This Exhibit shows the calculation of the advertising adjustment shown on Exhibit __ WWD-
13 14, line 2.

14

15 Q. BASED ON YOUR ANALYSIS, WHAT WHOLESALE DISCOUNT RATES WOULD YOU
16 RECOMMEND FOR RTC AND NYT?

17 A. I recommend 5.05 percent for RTC as shown on Exhibit __ WWD-14.

18

19 For NYT, I recommend 6.2 percent for business and 7.5 percent for residential overall. Part
20 of this could be in a "per line" credit, as is shown on Exhibit __ WWD-13.

21

1 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

2 A. Yes, at this time.

3 AL26127.1

EXPERIENCE OF WILLIAM DUNKEL

I am a consultant providing services in telephone rate proceedings. I am the principal of William Dunkel and Associates, which was established in 1980. Since that time, I have regularly provided consulting services in telephone regulatory proceedings throughout the country. I have participated in over 100 state regulatory telephone proceedings as listed on Appendix A attached hereto.

I currently provide, or in the past have provided, services in telecommunications proceedings to the following clients:

The Public Utility Commission or the Staffs in the States of:

Arkansas	Mississippi
Arizona	Missouri
Delaware	U.S. Virgin Islands
Georgia	Utah
Guam	Virginia
Illinois	Washington
Maryland	

The Office of the Public Advocate, or its equivalent, in the States of:

Colorado	Missouri
District of Columbia	New Jersey
Georgia	New Mexico
Hawaii	Ohio
Illinois	Pennsylvania
Indiana	Utah
Iowa	Washington
Maine	

The Department of Administration in the States of:

Illinois	South Dakota
Minnesota	Wisconsin

From November, 1975 to July, 1980, I was an engineer in the Telephone Section of the Illinois Commerce Commission. I was the expert witness for the Telephone Section during that time. I participated in essentially all telephone rate cases that were set for hearings in the State of Illinois during that period. In this position, I routinely analyzed and testified on cost studies and rate design issues on behalf of the Illinois

Commerce Commission Staff. I was the Separations and Settlements expert for the Illinois Commerce Commission.

From July, 1977 to July, 1980, I was a Staff member of the Federal Communications Commission - State Joint Board on Separations, FCC Docket No. 20981 on behalf of the Illinois Commerce Commission. The Joint Board had the national responsibility of recommending changes to be made, if any, in the Separations Manual as a result of customer ownership of terminal equipment.

In January of 1976, I attended the AT&T Division of Revenues School as a guest and in September of that year I attended the General Telephone Company Toll Revenues Management Course.

In February of 1970, I was employed by the Sangamo Electric Company as a Design Engineer initially in Navy sonar equipment, and later in the design of electric watt-hour meters. During this period, I was granted patent No. 3822440 entitled a Solid State Pulse Initiator. In April of 1974, I was employed by the Illinois Commerce Commission in the Electric Section as a Utility Engineer. In November of 1975, I transferred to the Telephone Section of the Illinois Commerce Commission and from that time to July of 1980 I was assigned essentially all telephone rate cases and other telephone rate matters that were set for hearing in the State of Illinois. Finally, I have testified before the Illinois House of Representatives Subcommittee on Communications and have participated in numerous schools and conferences pertaining to the Utility industry.

I graduated from the University of Illinois in February of 1970 with a Bachelor's of Science Degree in Engineering Physics with emphasis on economics and other business related subjects. I have taken several post-graduate courses since my graduation. These post-graduate courses include statistical analysis from Sangamon State University in Illinois, and computer circuit design and the design of servo mechanisms from the University of Illinois.

- | | | |
|---|--|---------------------|
| - | Mountain Bell Telephone Company | |
| | Call Trace Case | Docket No. 92S-040T |
| | Caller ID Case | Docket No. 91A-462T |
| | General Rate Case | Docket No. 90S-544T |
| | Local Calling Area Case | Docket No. 1766 |
| | General Rate Case | Docket No. 1720 |
| | General Rate Case | Docket No. 1700 |
| | General Rate Case | Docket No. 1655 |
| | General Rate Case | Docket No. 1575 |
| | Measured Services Case | Docket No. 1620 |
| - | Independent Telephone Companies | |
| | Cost Allocation Methods Case | Docket No. 89R-608T |

DELAWARE

- | | | |
|---|---------------------------------|-----------------------|
| - | Diamond State Telephone Company | |
| | General Rate Case | PSC Docket No. 82-32 |
| | General Rate Case | PSC Docket No. 84-33 |
| | Report on Small Centrex | PSC Docket No. 85-32T |
| | General Rate Case | PSC Docket No. 86-20 |
| | Centrex Cost Proceeding | PSC Docket No. 86-34 |

DISTRICT OF COLUMBIA

- | | | |
|---|-------------------------------|---------------------|
| - | C&P Telephone Company of D.C. | |
| | Depreciation issues | Formal Case No. 926 |

GEORGIA

- | | | |
|---|---|-------------------|
| - | Southern Bell Telephone & Telegraph Co. | |
| | General Rate Proceeding | Docket No. 3231-U |
| | General Rate Proceeding | Docket No. 3465-U |
| | General Rate Proceeding | Docket No. 3286-U |
| | General Rate Proceeding | Docket No. 3393-U |

HAWAII

- | | | |
|---|---------------------------------|--------------------|
| - | GTE Hawaiian Telephone Company | |
| | Depreciation/separations issues | Docket No. 94-0298 |

ILLINOIS

- | | | |
|---|--|--------------------|
| - | Central Telephone Company
(Staunton merger) | Docket No. 78-0595 |
| - | General Telephone & Electronics Co. | |
| | General rate case (on behalf of CUB) | Docket No. 93-0301 |
| | (Usage sensitive rates) | Docket No. 79-0141 |
| | (Data Service) | Docket No. 79-0310 |
| | (Certificate) | Docket No. 79-0499 |
| | (Certificate) | Docket No. 79-0500 |
| - | General Telephone Co. | Docket No. 80-0389 |
| - | Illinois Bell Telephone Company | |
| | Area code split case | Docket No. 94-0315 |

ILLINOIS (CONT.)

General Rate Case	Docket No. 83-0005
(Centrex filing)	Docket No. 84-0111
General Rate Proceeding	Docket No. 81-0478
(Call Lamp Indicator)	Docket No. 77-0755
(Com Key 1434)	Docket No. 77-0756
(Card dialers)	Docket No. 77-0757
(Concentration Identifier)	Docket No. 78-0005
(Voice of the People)	Docket No. 78-0028
(General rate increase)	Docket No. 78-0034
(Dimension)	Docket No. 78-0086
(Customer controlled Centrex)	Docket No. 78-0243
(TAS)	Docket No. 78-0031
(Ill. Consolidated Lease)	Docket No. 78-0473
(EAS Inquiry)	Docket No. 78-0531
(Dispute with GTE)	Docket No. 78-0576
(WUI vs. Continental Tel.)	Docket No. 79-0041
(Carle Clinic)	Docket No. 79-0132
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(Com Key 718)	Docket No. 79-0365
(Complaint - switchboard)	Docket No. 79-0380
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(Certificate)	Docket No. 79-0501
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(Other minor proceedings)	Docket No. various
- Home Telephone Company	Docket No. 80-0220
- Northwestern Telephone Company	
Local and EAS rates	Docket No. 79-0142
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INDIANA

- Public Service of Indiana (PSI)	
Depreciation issues	Cause No. 39584
- Indianapolis Power and Light Company	
Depreciation issues	Cause No. 39938

IOWA

- U S West Communications, Inc.
 - Local Exchange Competition Docket No. RMU-95-5
 - Local Network Interconnection Docket No. RPU-95-10
 - General Rate Case Docket No. RPU-95-11

MAINE

- New England Telephone Company
 - General rate proceeding Docket No. 92-130

MARYLAND

- Chesapeake and Potomac Telephone Company
 - General rate proceeding Docket No. 7851
 - Cost Allocation Manual Case Case No. 8333
 - Cost Allocation Issues Case Case No. 8462

MINNESOTA

- Access charge (all companies) Docket No. P-321/CI-83-203
- U. S. West Communications, Inc. (Northwestern Bell Telephone Co.)
 - Centrex/Centron proceeding Docket No. P-421/91-EM-1002
 - General rate proceeding Docket No. P-321/M-80-306
 - Centrex Dockets
 - MPUC No. P-421/M-83-466
 - MPUC No. P-421/M-84-24
 - MPUC No. P-421/M-84-25
 - MPUC No. P-421/M-84-26
 - General rate proceeding MPUC No. P-421/GR-80-911
 - General rate proceeding MPUC No. P-421/GR-82-203
 - General rate case MPUC No. P-421/GR-83-600
 - WATS investigation MPUC No. P-421/CI-84-454
 - Access charge case MPUC No. P-421/CI-85-352
 - Access charge case MPUC No. P-421/M-86-53
 - Toll Compensation case MPUC No. P-999/CI-85-582
 - Private Line proceeding Docket No. P-421/M-86-508
- AT&T
 - Intrastate Interexchange Docket No. P-442/M-87-54